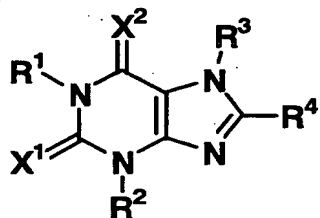
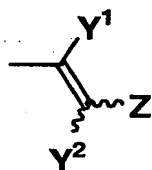


# ABSTRACT



(I)



(II)

(wherein R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> are the same or different, and represent a hydrogen atom, lower alkyl, lower alkenyl or lower alkynyl; R<sup>4</sup> represents cycloalkyl, -(CH<sub>2</sub>)<sub>n</sub>-R<sup>5</sup> or a group represented by the above formula (II); and X<sup>1</sup> and X<sup>2</sup> are the same or different, and represent an oxygen atom or a sulfur atom)

The present invention provides, for example, agents for preventing and/or treating higher brain dysfunction comprising, as an active ingredient, a xanthine derivative represented by the above formula (I) or a pharmaceutically acceptable salt thereof.